Continuing Medical Education is more than just an after-dinner topic of conversation now at Washington University School of Medicine.

On February 27, our Office of Continuing Medical Education offered its first program, “A Course in Morphologic Hematology.” Virginia Minnich, D.Sc., research associate professor of medicine, is teaching the 10-segment course which, because it was oversubscribed within the first week of registration, will be re-scheduled in the near future.

A Symposium on Obstetrics and Gynecology was held April 22-23, presented by our OB/GYN Department, with Professors David L. Barclay, M.D., of the University of Arkansas Medical Center, and E. Stewart Taylor, M.D., of the University of Colorado Medical Center, as guest faculty.

I am pleased to report that alumni coming to St. Louis May 8-10 for this year’s annual reunion will be exposed to an excellent program on “Management of Medical and Surgical Crises.” In addition to morning lectures by experts from our faculty, and afternoon workshops on a multiplicity of topics, there will be “Breakfasts with the Professors” on the latter two days. The complete schedule is printed on pages 16-17.

In late May a two-day seminar on hypertension also has been scheduled.

We believe that this is a very worthwhile contribution to the medical community being directed by Elmer B. Brown, M.D. ’50, since his appointment a year ago to the newly created position of associate dean for continuing medical education. We also want to mention the large number of alumni who have prompted the formation of such a program, have been active in getting it established, and have assisted Dr. Brown in making it productive. Two who have been particularly active are Robert R. Anschuetz, M.D. ’40, of Alton, Illinois, and Past President Jack Barrow, M.D. ’46.

I also would like to compliment the Medical Center Alumni Association for its First Annual Clinical Conference held in Maui, Hawaii February 16-23. More than 200 doctors and spouses (and even a few children) mixed seminars with sunshine and surf to revivify themselves away from the mainland’s winter. Alumni Association President James A. Wood, M.D. ’49, and Executive Council Member Richard Y. Sakimoto, M.D. ’33, of Honolulu, deserve plaudits for planning and executing such an admirable endeavor.

Next year’s Clinical Conference is scheduled February 22-29 in the Caribbean. Scientific sessions will be sandwiched in between visits to Cap-Haitien, San Juan, St. Thomas and Nassau before the M/S Skyward returns to Miami. President-elect Donald H. Finger, M.D. ’50, is already “under way” arranging the program.

The fine cooperation and support of the alumni for the Medical School are greatly appreciated.

M. Kenton King, M.D.
Dean
ON THE COVER

The murine authority for the Amphotericin B Group, Ralph J. Graff, M.D., uses magnifying glasses to inspect one of his mice for signs of tumor growth. The story begins on page 4.

BACK COVER

The scrawny one in the center is a thymus-less nude male mouse, congenitally deficient in cell-mediated immunity, and used in some Amphotericin B Group research. He and his pregnant mates are forming this exclusive colony in the laboratories of J. Russell Little, M.D.
Amphotericin B—Part of the Powder

A powerful immunostimulant that permits cure of mice with advanced leukemia; an antibiotic that allows effective therapy of a variety of fungal infections in humans; a reagent that promotes the uptake of nucleic acids and antimetabolites into cells—amphotericin B is all of these and more.

The range of its effect has been discovered by, and has brought together, a corresponding range of 11 investigators (the "AmB Group") here at Washington University Medical Center. What is amphotericin B, who are these people, and what are they doing?

AmB is a kind of antibiotic with a marked binding attraction for sterols. The cell membranes of higher cells all contain sterols, the principal one in fungi being ergosterol, and in animal cells, cholesterol. AmB binds to the cell membrane because of its affinity for cholesterol, and also affects many membrane functions. But many other chemicals bind to cell membranes—detergents, for example.

What special results of AmB binding can warrant bringing together two immunologists, two cell biologists, a pediatrician, a clinical oncologist, an immunologist-pathologist, a molecular biologist, a mycologist and a surgeon into a group headed by an infectious disease specialist?

Perhaps the best explanation is to summarize the way in which results led to the group as it now stands.

The group leader, Gerald Medoff, M.D. '62, is chief of the Infectious Disease Division and associate professor of medicine. Stimulated by the number of patients with serious fungal infections treated at Barnes Hospital, Dr. Medoff became interested in improving the treatment of these serious infections; and he and George S. Kobayashi, Ph.D., a mycologist (fungus specialist) in the Division of Dermatology, started their collaboration to accomplish this. Dr. Kobayashi has appointments in the Departments of Medicine and Microbiology and is also associate director of Barnes Hospital's Diagnostic Bacteriology Laboratory. Their plan was to exploit the ability of AmB, the only effective systemic antifungal agent known, to increase the permeability of fungi so that other antibiotics could penetrate the organisms and become effective. This would lead to more efficient killing of fungi, and also might allow lower doses of AmB to be used on patients thereby decreasing the fre-
for a Magic Bullet?

quent toxicity of that drug.

Their initial experiments were successful as were tests of the combination against animal infections. The success of the work has led to a combined study with 11 other medical centers to test the drug combinations against human fungus infections. Preliminary results suggest that the combinations will be more effective than Amb alone.

Soon after the fungus work began, Dr. Kobayashi, in the relaxed atmosphere of a freshman medical student lab, casually mentioned some of the early findings to David Schlessinger, Ph.D., professor of microbiology and a well-known physiologist and molecular biologist. Dr. Schlessinger was interested in this result because his lab was working on yeasts with weak cell walls, and he observed that they also become sensitive to a variety of antibiotics.

The three—Medoff, Kobayashi and Schlessinger—then began a close collaboration which has extended from the original questions on therapy to others involving the usefulness of Amb as a biologic tool and studies on RNA synthesis, protein synthesis and the membrane biochemistry of fungi. In addition, Drs. J. Brajtburg, B. V. Kumar, E. Battaner, P. Venkov, C. Kwan, S. Cheung, and G. Boguslawski all have contributed to these studies.

About two years ago the work took a dramatic turn. Because animal cells have membranes similar to fungi (but contain cholesterol rather than ergosterol), it was reasoned that Amb also should affect animal cells by enhancing the uptake of second drugs. Again these experiments were successful, and thus far the group has been able to use Amb to increase membrane permeability, thereby potentiating the effects of antitumor agents against tumor cells in culture and permitting introduction of other molecules, including nucleic acids into the cells.

The initial work in animal cells led to tests of the effects of Amb against animal tumors. This is when Frederick A. Valeriote, Ph.D., joined the group. Dr. Valeriote is head of the section of cancer biology of the Division of Radiation Oncology in the Department of Radiology, and has developed a variety of cellular assays for normal and tumor cells in culture and in whole animals. These assays are of value in testing the effectiveness of antitumor agents.
against animal tumors.

AmB was tested against a mouse leukemia in combination with an anti-tumor agent BCNU. The design of the experiment was as follows. One million leukemic cells were injected into the mice, and three days after injection AmB was given, followed by BCNU. Untreated mice died of leukemia by Day 6. BCNU alone prolonged life by two days; AmB alone had no effect. But treated with the drug combination, 100% of the animals survived indefinitely.

This result was dramatic enough, but even more interesting was the finding that the surviving animals had persisting leukemic cells which neither increased in number nor killed the animals. The group felt that the AmB, in addition to enhancing the effect of BCNU, also was affecting the host to stimulate the immune system, thereby increasing resistance to the tumor.

A new ball game had started, and as the need for immunologists became important, J. Russell Little, M.D., Richard G. Lynch, M.D., Hsiu-san Lin, M.D., Ph.D., and Carlton C. Stewart, Ph.D., joined the group.

Dr. Little is professor of medicine, associate professor of microbiology and co-director of the division of Immunology and Cell Biology and Cancer at Jewish Hospital. Dr. Little's work in the group has been to characterize and quantitate the immunologic properties of AmB.

Dr. Lynch is an immunologist and pathologist who also has been studying the immunologic effects of AmB as well as examining the tissues of leukemic mice. He has discovered that the leukemia in the AmB-treated mice invades the central nervous system. This finding is of great significance because a similar phenomenon occurs in the long-term survivors of childhood acute lymphoblastic leukemia, making this mouse model very relevant to the human malignancy.
Drs. Lin and Stewart are both assistant professors in the Section of Cancer Biology, Department of Radiology. They have been studying the effects of AmB on the cells of the immune system (lymphocytes and macrophages) in tissue culture.

To understand better this aspect of the work, some review of the concepts in immunology is essential. For a long time it has been known that the body is protected by a natural defense system that acts to destroy germs and other foreign substances which invade the body. Since the 19th century, scientists have known that they can mobilize a person's defense system, making him immune to a disease, by injecting or vaccinating him with a small number of the germs of that disease. Despite important progress in combating disease with this vaccination principle, these concepts in immunology have not, until recently, been adapted to other problems in medicine because scientists did not know enough about how immunity worked to use it against other kinds of threatening diseases.

The thymus, a small gland near the heart, controls one component of the
body's immune response (T-lymphocytes), and the bone marrow (B-lymphocytes) controls the other component in what appears to be a very efficient defense system. Functioning through the two different kinds of lymphocytes (white blood cells), the body is able to mount a first-strike capacity against bacteria and other small invaders, and also resist the onslaughts of heavier enemies, ranging from unwanted skin grafts to tumors.

There are now ways to tell how well each sector of the immune system is doing against each invader: also it is possible to decrease or increase the immunity level with some scientific accuracy. All this provides exciting links of immunology to almost every branch of medicine and the possibility that stimulation of the immune system could be the ultimate weapon for cur-}

{ing infections and cancer since both represent a kind of foreign invasion in the host.

The use of AmB, and the immunological findings of the group, may provide some answers to some of these basic questions of biology, and conceivably may result in therapeutic usefulness. The group believes that AmB experiments should yield information of broad significance in immunobiology, with special relevance to tumor immunotherapy and prophylactic immunization against infections.

By this time the studies have progressed to the point where a well-controlled mouse colony was a necessity. Ralph J. Graff, M.D., '57, assistant professor of microbiology and clinical surgery, is the murine (mouse and rat) specialist. Under his supervision, and using the inbred mouse strains available within the colony he has cultivated, the AmB group has been comparing skin graft median survival times in control AmB treated mice with skin grafts from mouse strains known to differ in a small number of antigens. This provides further information about the effects of AmB on the immune system and has implications for organ transplantation.

The striking success of many of the experiments with mice led the group to begin human studies. The only woman in the group, Teresa J. Vietti, M.D., professor of pediatrics and associate professor of radiology, is participating in this aspect of the work. Dr. Vietti brings to the AmB group a background of knowledge in pediatric cancers and research with chemotherapeutic agents. Her use of AmB in patients (along with the other drug BCNU) has
TERESA J. VIETTI
A.B. Rice University, 1949
M.D. Baylor University, 1953
Professor of Pediatrics
Associate Professor of Pediatrics in Radiology
(Radiation Oncology)

Itiated the first clinical trials of the AmB combinations in the treatment of human leukemia.

Her counterpart in the study of adult cancer chemotherapy is Cary A. Presant, M.D. Dr. Presant, like Drs. Graff and Little, has offices at Jewish Hospital. He is an assistant professor of medicine, and has been testing new chemotherapeutic agents including AmB and BCNU in patients with cancer.

The group has been in existence in its present form for about a year. The work has progressed despite the fact that funding for new research has been scarce. When doctors find a subject they consider to be extremely important, they sometimes can scavenge some funds to furnish some beginning research on the new subject. But inevitably, the time comes when some additional grants are necessary. That is where the AmB Group is today. Its members have just begun to answer some very basic questions and they don't want to stop now. Hopefully, the work the investigators have already completed, paid for through various other means, will go on.

As of March 1, the AmB Group began operating on a contract from the National Institutes of Health, and they have applied for additional support from the National Cancer Institute. Washington University also has made application to the National Cancer Institute to be designated as a Comprehensive Cancer Center. If this occurs, it will be a real boost to all cancer research and care of cancer patients in the medical center.

Even if funding is scarce, the members of the group certainly enjoy the interaction and joint sense of purpose that the project affords. For example, they meet—with surprisingly cheerful dispositions—at 7:30 a.m. each Friday to discuss ongoing projects and proposals over coffee, doughnuts—and results. In addition, subcommittees meet

CARY A. PRESANT
M.D. State University of New York at Buffalo, 1966
Assistant Professor of Medicine
regularly during the week. There is no hierarchy among the members of the group. They all sit around the table during their meetings exchanging ideas. Sometimes they poke fun at each other; sometimes there is laughter; sometimes silence; but always there is science.

Looked at from the point of view of a reporter outside the group, such a multidisciplinary effort might seem natural for a medical center. Thus, a project requiring clinical experience as well as basic research work can reasonably make use of five Ph.D.’s and seven M.D.’s (one member, Dr. Lin, has both); and all the M.D.’s have the wide contact with basic science that none of our alumni would be surprised to find in WU clinicians! Similarly, in the best traditions of America, the group includes two citizens of oriental descent, a sprinkling of second-generation Jews of Eastern European extraction, two from Italian families, an Irishman from Brooklyn, and a Bostonian.

On the other hand, anyone who knows how fragmented and alienated the usual atmosphere of academic work can be will know that functioning interdisciplinary groups are rare. What keeps this one together? The answer, to that question at least, is simple: the intrinsic interests and needs of the project. Perhaps a better answer would be another question: Just how far can the use of amphotericin B be pushed as a tool for the understanding of cell biology and immunology, and as a tool for clinical use? As long as that question remains unanswered it seems assured that the AmB group will remain intact.

RALPH J. GRAFF
A.B. Washington University, 1957
M.D. Washington University, 1957
Assistant Professor of Clinical Surgery
Assistant Professor of Microbiology
Recollections of Earl Sutherland, M.D. '42

My memory of Earl Sutherland is a composite assemblage of episodes, encounters and shared experiences which extend in time from 1948 to the recent past when his remarkable scientific achievements brought him the ultimate recognition in 1971 of being awarded the Nobel Prize for Physiology and Medicine.

It is mostly about the early years here—from 1948 to 1953 when he moved from St. Louis—that I have chosen to write because in those years our paths crossed daily in the second floor research laboratories of the Department of Biological Chemistry, in the old first floor teaching laboratory, and, on weekends, sometimes on a Missouri river bank for fishing and relaxation.

Earl Sutherland was always simple and direct in his approach to people, to life, and to science. He worked in his laboratory then most often with only one assistant, and, like nearly all of the members of the department at the time, he was studying enzymatic problems related to glycogen metabolism. However, even then, Earl’s work was distinctly different, in that it always had highly visible physiological and pharmacological facets which developed out of his own concern with the deeper significance of biochemical processes in mammalian metabolism.

Before his graduation from Washington University Medical School in 1942, he had been a student assistant to Dr. Carl Cori in pharmacology, and when Dr. Cori became Head of Biochemistry, Earl—who by then had served an internship in medicine in Barnes Hospital and two years in the Army—became an instructor in the department. I remember that when I arrived in St. Louis to work with the Coris in 1948, Earl had just published a paper with one of Carl Cori’s postdoctoral fellows—Christian de Duve from Belgium who later was to become famous in biochemistry in his own right. The title of the paper was the “Origin and Distribution of the Hyperglycemic-Glycogenolytic Factor of the Pancreas” and it reported results on the isolation of the active principle, which was later to be called glucagon, from dog pancreas. The assays for it were done with rabbits and with rabbit tissues in vitro.

I mention these details because Earl’s experimental skill with various animal preparations was notable, and in his later work here as well as at Western Reserve University he continued to use dogs as an important source of tissues for enzyme preparations and for pharmacological studies.
When Earl left our department in 1953, work with larger mammals virtually ceased because there was no one who felt as comfortable as he in working with such experimental subjects. It is apparent in conversations with investigators today that many have forgotten or never known that Sutherland and de Duve's work here in 1948 on glucagon resulted in their being able to conclude for the first time that this glycogenolytic factor originates in the α-cells of the pancreas.

For more than the next two decades Earl Sutherland continued to study in ever-increasing breadth and depth the way in which this factor exerts its physiological effects, and cyclic-AMP and the Nobel Prize lay at the end of the trail he blazed and traveled.

Earl was a quiet man who spent very little time during the working day talking to his colleagues unless they sought his advice. He liked to plan experiments and to do them. I remember that he visibly enjoyed at a personal level the able help which he received in his work from an attractive technician who was one of the first such employees ever to be hired in that capacity in our whole department. In those days technical assistance for the investigator was the exception rather than the rule.

Earl also enjoyed the end of the day, and his going home to a relaxing drink and an evening of playing poker with his wife and friends. He was a dedicated and successful poker player then. His children were young at that time and he liked to take them fishing whenever he could.

He himself had grown up in the surroundings of the slowly moving rivers of Kansas. His idea of fishing was not to make it a very strenuous occasion, but, rather, to make the experience one to savor slowly and philosophically. In later years, especially in Tennessee, his fishing trips became somewhat more vigorous and elaborate, and, before his death, he even was able to have experience in deep sea fishing off the Florida Keys. But in 1950 Earl required very little tackle and not much action to be happy along the Courtois, the Meramec, or the Big and Little Piney Rivers.

Earl lectured in our first year biochemistry course for medical students, and it is interesting to recall that his assignment was lipids and lipid metabolism with which he had no personal experimental familiarity. He was not

Memorial Established for Nobelist

Earl W. Sutherland, Jr., M.D. '42, who was awarded the 1971 Nobel Prize in Medicine and Physiology, died March 9, 1974, at the age of 58.

He entered Jackson Memorial Hospital in Miami on Feb. 27. Death was attributed to bleeding at the base of the esophagus, usually associated with high blood pressure.

Prior to his death he was distinguished professor of biochemistry at the University of Miami School of Medicine.

In addition to the Nobel Prize, Dr. Sutherland had received the National Medal of Science, the nation's highest award for distinguished achievements in science; the Albert Lasker Award; the Banting Medal; the Gairdner Foundation Award; the Torald Sollman Award in Pharmacology; and the first Dickson Prize in Medicine.

Washington University recognized him in 1965 with a Founder's Day Alumni Citation, and in 1970 with an honorary Doctor of Science degree.

His first discovery, published in 1955, was the means by which the hormone adrenaline regulates the breakdown of carbohydrates stored in the liver. He learned that adrenaline works by activating the enzyme phosphorylase, a chemical catalyst that triggers the release of energy-producing glucose. This explains how the body produces additional energy under stress.

In 1958, Dr. Sutherland isolated a previously unknown chemical called cyclic adenosine 35'-monophosphate, or cyclic AMP, that functions in an intermediary role in many hormonal processes.

Cyclic AMP has been termed a missing link in a long series of biological control mechanisms. It was shown that hormones do not act directly on their target organs. Instead, they trigger the production of cyclic AMP, which in turn regulates body functions, increasing the rate at which some take place, slowing down the rate of others. (When adrenaline output is increased by fear or anxiety, it is not the adrenaline itself that speeds up the heart; rather, the adrenaline activates cyclic AMP, which stimulates heartbeat.)

This chemical also plays a role in the digestive and reproductive processes as well as in the brain's system of message transmission. Cyclic AMP also may be involved in the transmission of genetic information and in abnormal cell growth. When cyclic AMP is added to cancerous cells, it returns them to normal. Some believe that the chemical may hold the key to the cure of certain types of cancer.

At the suggestion of a member of the Class of '41 (he began his medical education with that class but decided to do a year of research before graduating in 1942), the Dr. Earl W. Sutherland Memorial Scholarship Fund has been established. Persons wishing to contribute may send checks, written to Washington University School of Medicine, to the Medical Center Alumni Office, 660 South Euclid Avenue, St. Louis, Missouri 63110.
notably effective as a lecturer and did not like doing it—but he did like the interaction with medical students which occurred in the teaching laboratory. They liked him too, and, in fact, I can not recall anyone who ever found unattractive his easy-going manner and calm attitude toward scientific and personal problems.

I believe that his tendency to approach research in a deliberate, relaxed, and unhurried manner made him somewhat unique among other investigators who have also achieved the distinction which was ultimately his. Earl Sutherland never sought public exposure in scientific circles and sometimes refused to attend meetings and symposia to which he was invited. However, he appreciated the honors which Washington University bestowed upon him in later years as a distinguished alumnus.

His education in our medical school, and the early opportunity which he had in our biochemistry department to settle into the path of research along which he moved so brilliantly, were never forgotten by him. Likewise we as his former friends and this institution as his former home will never be able to forget the contributions which Earl Sutherland made in his 58 years of active life.

David H. Brown, Ph.D.
Professor of Biological Chemistry

When I arrived at Washington University School of Medicine in September, 1941, Earl Sutherland had just begun that summer the period of two years in which he went to medical school half time and worked in research with Dr. Carl Cori half time. He also was active in helping to teach pharmacology laboratory for the second year medical class, although I do not believe he gave any lectures.

Earl was using his part-time research period to decide about his career and whether he wanted to enter research. He had a very firm interest in the possible action of hormones. He worked with Sidney Colowick (Washington University B.S. and Ph.D. later) and Dr. Cori.

At that time there was a widespread debate among biochemists and physiologists as to whether one would ever be able to see the effects of a hormone once a cell was broken up to examine its enzyme systems.

Sutherland was obviously rather unwaveringly dedicated to the concept that eventually it would be possible to show the effect of hormones on some enzyme systems. However, the early work was carried out with whole cells in tissue slices, first with insulin and later with glucagon. Sometimes effects in tissue slices were compared with effects in homogenates or extracts. The latter were almost uniformly negative in all of the earliest work.

Earl loved to fish and to play poker. He took his family, or sometimes just his sons, on fishing or camping trips. He also took his youngsters to baseball games, although this appeared to be the result of very strong interest in baseball by his boys rather than on his own part. We all enjoyed the Sunday breakfast cookouts at Babler Park or Rockwoods Reservation.

After Earl graduated in 1942 and interned, he entered the Army and was away for several years. Then he returned to Dr. Cori’s department. It was during this second period that research led to evidence for some kind of a nucleotide, possibly a derivative of adenylic acid, in certain hormonal actions.

Evidence that the material was almost certainly 3', 5'-cyclic adenyl acid came almost simultaneously from several sources, including the fact that Dr. David Lipkin of Washington University’s Chemistry Department had isolated cyclic-AMP from alkaline (barium hydroxide) hydrolysates of ATP and had characterized the material.

When Earl went to Western Reserve University he spent six to eight long years struggling with attempts to identify the participation and role of cyclic-AMP in various tissues and systems. The work was slow because the systems proved to be complex and because the methods then available for determining cyclic-AMP were tedious and time consuming. However, Earl’s perseverance paid off, and he reached the point where he could develop more reasonable working hypotheses on the basis of known observations.

His work on cyclic-AMP and the “second messenger” concept for cyclic-AMP’s role in hormone action was widely heralded and stimulating. Hundreds joined the field now that the door had been opened a crack.

Today many thousands of workers are trying to pin down the details of the role of cyclic-AMP in cells. We have some general outlines that appear to be correct, at least for some tissues or systems, and other things may soon fall into place.

F. Edmund Hunter, Jr., Ph.D.
Professor of Pharmacology
Internship Appointments—Class of 1974

**ARKANSAS**
Little Rock
University of Arkansas
Ronald F. Kahn, Family Practice

**CALIFORNIA**
Irvine
University of California Affiliated Hospitals
Richard A. Gangnes, Surgery
Los Angeles
Los Angeles County, U.S.C. Medical Center
Jerold E. Boyers, Medicine
Peter Glickman, Medicine
University of California Hospital
Mark E. Granoff, Medicine
Cedars of Lebanon Hospital
Lucy H. Hu, Pediatrics
San Diego
University Hospital of San Diego County
Joel M. Depper, Medicine
Margaret W. Meyer, Pathology
Alan J. Tiefenbrunn, Medicine
San Francisco
Letterman General Hospital (Army)
Michael W. Bain, Rotating
San Francisco General Hospital
Paul Golden, Medicine
University of California Hospitals
Richard A. Jacobs, Medicine
Mount Zion Hospital
Steven P. Orkan, Medicine
Stanford
Stanford University Affiliated Hospitals
Robert V. Rouse, Pathology
Torrance
Los Angeles County Harbor General Hospital
Pearl E. Grimes, Rotating
David L. Yarian, Rotating

**COLORADO**
Denver
Presbyterian Medical Center
Richard A. Hattan, Rotating

**CONNECTICUT**
New Haven
Yale-New Haven Medical Center
Mark H. Jaffe, Medicine

**FLORIDA**
Miami
University of Miami Affiliated Hospitals
Gerald S. Shatz, Medicine
Lloyd R. Taustine, Medicine
Tampa
University of Southern Florida Affiliated Hospitals
Thomas W. Woodrow, Medicine

**ILLINOIS**
Chicago
University of Chicago Clinics
Robert M. Cohen, Psychiatry
Stephen C. Meredith, Pathology
Michael Reese Hospital
Ohterine Graham, Medicine
Presbyterian-St. Luke's Hospital
Margaret A. Kitchell, Medicine

**INDIANA**
Indianapolis
Indiana University Medical Center
Richard S. Graul, Surgery
Adrian M. Oleck, Medicine

**IOWA**
Iowa City
University of Iowa Hospitals
Natalia H. Kozak, Family Practice
Stefan P. Kozak, Family Practice
Mark H. Wener, Medicine

**KENTUCKY**
Lexington
University of Kentucky Medical Center
Bruce C. Broudy, Medicine

**MARYLAND**
Bethesda
Naval Hospital
Robert E. Herold, Rotating

**MASSACHUSETTS**
Boston
Massachusetts General Hospital
William S. Coleman, Surgery
Beth Israel Hospital
Jonathan M. Mann, Medicine

**MICHIGAN**
Ann Arbor
University of Michigan Affiliated Hospitals
Andrew K. Greenfield, Radiology
Grand Rapids
Blodgett Memorial Hospital
William L. Songer, Rotating

**MINNESOTA**
Minneapolis
University of Minnesota Hospitals
Stephen M. Clifford, Radiology
Linda B. Peterson, Psychiatry
McKim C. Peterson, Family Practice

**MISSOURI**
Columbia
University of Missouri Medical Center
Alfred O. Berg, Family Practice
Scott Fleischman, Rotating
Gerald R. Silvoso, Medicine
St. Louis
Barnes Hospital
Stephen D. Burrows, Radiology
Lewis C. Fischbein, Medicine
Terry A. Fuller, Psychiatry
Kenneth R. Kaufman, Psychiatry
David R. Lange, Surgery
Stanley Mogelson, Medicine
Barry R. Paull, Radiology
Patricia A. Penkoske, Surgery
Fredrick J. Schwartz, Medicine
Leyland A. Thomas, Pathology
David S. Weil, Obstetrics/Gynecology
Robert A. Weiss, Pathology
Ronald A. Wellar, Psychiatry
Michael O. Williams, Surgery
The Jewish Hospital of St. Louis
Joan G. Clark, Medicine
Ronald K. DeGuerre, Surgery
John C. Gorman, Medicine
Donald R. Graham, Medicine
Roslyn A. Kaplan, Medicine
Wesley W. Murfin, Medicine
Moon H. Nahm, Medicine
Charles R. Potter, Surgery
Barry L. Samson, Surgery
Robert J. Scheff, Medicine
David J. Schwartz, Medicine
Paul W. Sheffner, Medicine
Dolores R. Tucker, Pathology
Keith A. Wicherman, Surgery
Richard L. Wolbarsht, Pathology
St. Louis Children's Hospital
James P. Baker, Pediatrics
Robert T. Brouillette, Pediatrics
Max H. Burgdorf, Pediatrics
James M. Corry, Pediatrics
Sharon S. Crandell, Pediatrics
Gregory N. Entis, Pediatrics
Nancy J. Minshew, Pediatrics
David S. Olander, Pediatrics
Jerry L. Rosenblum, Pediatrics
William C. Stratton, Pediatrics
Julian C. Williams, Pediatrics

**ST. LOUIS CHILDREN'S HOSPITAL**
James P. Baker, Pediatrics
Robert T. Brouillette, Pediatrics
Max H. Burgdorf, Pediatrics
James M. Corry, Pediatrics
Sharon S. Crandell, Pediatrics
Gregory N. Entis, Pediatrics
Nancy J. Minshew, Pediatrics
David S. Olander, Pediatrics
Jerry L. Rosenblum, Pediatrics
William C. Stratton, Pediatrics
Julian C. Williams, Pediatrics

**ST. JOHN'S MERCY HOSPITAL**
Mark L. Hoff, Family Practice
Keith H. Nunnelee, Rotating
## 10-Year Profile of Graduating Classes

### Type of Internship or Residency

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### Graduates Interning in Missouri

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</table>

### New York

- **Albany**
  - Albany Medical Center
  - Rosemary I. Moroni, Surgery
- **Manhattan**
  - North Shore Memorial Hospital
  - Frederick J. Nachtweg, Medicine
- **New York**
  - New York Hospital (Cornell Cooperating Hospitals)
    - Mark L. Berger, Medicine
  - Montefiore Hospital Center
    - James E. Bradof, Medicine
  - Louise A. Donohoe, Medicine
  - Edward Peskin, Medicine-Social
  - Bellevue Hospital Center—N.Y.U.
    - Howard G. Liang, Surgery
- **Oregon**
  - Portland
    - Good Samaritan Hospital
      - Milton T. Cohen, Medicine
      - William N. Sitz, Medicine
- **Pennsylvania**
  - Philadelphia
    - Hospital of University of Pennsylvania
      - Kim E. Marsh, Surgery
    - Temple University Hospitals
      - Sanford M. Timen, Medicine
  - Pittsburgh
    - Presbyterian-University Hospital
      - Harry D. Price, Pediatrics
- **Texas**
  - Dallas
    - Parkland Memorial Hospital
      - Michael B. Gutwein, Medicine
  - San Antonio
    - Wilford Hall USAF Medical Center
      - John S. Lockett, Surgery
- **Virginia**
  - Richmond
    - Medical College of Virginia Hospital
      - Bruce V. Weidner, II, Surgery
- **Washington**
  - Seattle
    - Providence Hospital
      - Gregory A. Rice, Rotating
  - Wisconsin
    - Milwaukee
      - Milwaukee County General Hospital
      - Jon A. Blackman, Family Practice
  - Canal Zone
    - Balboa Heights
      - Gorgas Hospital
      - Dale N. Thuline, Surgery
  - Canada
    - Montreal, Quebec
      - Montreal General Hospital
      - Kurt S. Frantz, Family Practice
    - Location Unknown
      - At Press Time
      - Dennis A. Bertram, Graduate work in Public Health
WEDNESDAY, May 8, 1974

8:00 am REGISTRATION

8:45 WELCOME AND INTRODUCTION
Dr. King and Dr. Wood

9:00 PRE-HOSPITAL MANAGEMENT OF TRAUMA AND ILLNESS—Dr. Klippel

9:30 SYMPOSIUM ON THE MANAGEMENT OF MULTIPLE TRAUMA (Part I)
Orthopedic—Dr. Conrad
Cardiovascular—Dr. Ferguson
Neurologic—Dr. Goldring
Shock—Dr. Collins

10:15 COFFEE BREAK

10:30 SYMPOSIUM ON THE MANAGEMENT OF MULTIPLE TRAUMA (Part II)

11:15 RESPIRATORY FAILURE
The Internist’s View—Dr. Senior
The Surgeon’s View—Dr. Bove

12:15 pm LUNCHEON—Olin Hall

1:15 BUSINESS MEETING OF MEDICAL CENTER ALUMNI ASSOCIATION

1:30 MANAGEMENT OF ACUTE CARDIAC DISORDERS
Early Management of Infarction and Its Complications—Dr. Paine
Management of Complicated Infarction—Dr. Sobel

2:30 DEMONSTRATIONS AND WORKSHOPS, Section I
Emergency Room Equipment and Ambulance—Dr. Klippel
Pediatric Poisoning—Diagnosis and Management—Dr. Keating
Film Reading Session: Skull, Bone and Joint—Drs. Gado and Staple
Interpretation of Blood Gases—Dr. Tuteur
Equipment for Respiratory Care—Dr. Lefrak
Shock—Dr. Collins

3:30 DEMONSTRATIONS AND WORKSHOPS, Section II
Emergency Room Equipment and Ambulance—Dr. Klippel
Cardiac Emergencies in Children—Dr. Strauss
Cardioversion, Pacemakers, CVPs, and Other Procedures—Drs. Paine, Grady, and Phillips
Ocular Emergencies—Drs. Smith and Drews
Postoperative Respiratory Failure—Dr. Yaughan
Burns—Dr. Wray

6:30 - 8:30 WELCOMING PARTY
North Ballroom, Stouffer’s Riverfront Inn

THURSDAY, May 9, 1974

7:30 am BREAKFAST WITH THE PROFESSOR
Dr. W. Maxwell Cowan
Dr. Samuel B. Gute
Dr. Paul E. Lacy
Dr. William M. Landau
Dr. Milton J. Schlesinger
Dr. James C. Warren

8:45 WELCOME AND INTRODUCTION
Dr. Gute and Dr. Finger

9:00 MANAGEMENT OF NEUROLOGIC PROBLEMS
Febrile Convulsions—Dr. Dodge
Evaluation of Patients with Dementia—Dr. Berg
Current Problems in the Management of Parkinsonism—Dr. Klinkerfuss

10:00 COFFEE BREAK

10:15 MANAGEMENT OF PSYCHIATRIC PROBLEMS
Suicide and Suicide Attempt—Dr. Murphy
The Severely Disturbed Patient—Dr. Halikas

11:15 ACUTE PEDIATRIC SURGICAL PROBLEMS
—Dr. Ternberg

11:35 ACUTE PEDIATRIC INFECTIOUS PROBLEMS AND ANTIBIOTIC THERAPY—Dr. Feigin

12:15 pm LUNCHEON—Olin Hall

1:30 AIRWAY OBSTRUCTION IN INFANTS AND CHILDREN—Dr. McAlister

2:00 RADIOLOGY OF THE PATIENT WITH ACUTE CHEST PAIN—Dr. Forrest

2:30 DEMONSTRATIONS AND WORKSHOPS, Section III
Emergency Room Equipment and Ambulance—Dr. Klippel
Acute Pediatric Endocrinologic Problems—Dr. Pagliara
GU Radiology—Nuclear Medicine—Drs. Melson and Siegel
The Suicidal Patient—Dr. Murphy
Neurologic Problems—Stroke, Epilepsy, Coma—Drs. Berg and Brooks

3:30 DEMONSTRATIONS AND WORKSHOPS, Section IV
Emergency Room Equipment and Ambulance—Dr. Klippel
Acute Pediatric Psychiatric Problems—Dr. Herjanic
Fractures and Sprains—Dr. Reynolds
Drug and Alcoholism Problems in a Non-Psychiatric Practice—Dr. Halikas
Neurologic Problems—Stroke, Epilepsy, Coma—Drs. Berg and Brooks

6:30 - 8:30 WELCOMING PARTY
North Ballroom, Stouffer’s Riverfront Inn

FRIDAY, May 10, 1974

7:30 am BREAKFAST WITH THE PROFESSOR
Dr. Eugene M. Alpers
Dr. Philip R. De Weese
Dr. Ronald G. Egan
Dr. David M. Klinkerfuss
Dr. Oliver H. Lacy
Dr. Robert E. Mancini

9:00 DIAGNOSIS AND MANAGEMENT OF LOWER GI HEMORRHAGE—Drs. Alpers and De Weese

9:40 DIAGNOSIS AND MANAGEMENT OF HEMORRHAGE—Dr. Egan

10:00 OPTIMAL USE OF ANTIBIOTICS—Drs. Alpers, De Weese, and Egan

10:20 COFFEE BREAK

10:40 DIAGNOSIS AND MANAGEMENT OF THE SEVERELY DISTURBED CHILD—Dr. Mancini

11:00 MANAGEMENT OF ACUTE METABOLIC DISEASES—Dr. Alpers

11:20 MANAGEMENT OF ACUTE PSYCHIATRIC DISEASES—Dr. Mancini

12:00 DEAN’S LUNCHEON

The office of Continuing Education of Washington University School of Medicine in conjunction with the Alumni Association is proud to present the course, "The Management of Medical and Surgical Problems" on May 8, 9, and 10, 1974.

The clinical sessions will be held in the Wohl Amphitheater and Clinics Building. Demonstrations and workshops will be held at various locations.

Advance registration is required. The fee is $75.00 per person. Registration includes all meals, lunches on Wednesday and Thursday, and an evening cocktail party. The Alumni Association is the proud sponsor of the event.

The headquarters for alumni and guests will be Stouffer’s Riverfront Inn, 300 Riverfront Street.

This course is approved for 7 hours in Category II of the American Academy of Family Physicians Definition Award of the American Academy of Family Physicians, and applicants will receive equal credit from the American Board of Family Physicians.
# SURGICAL CRISISES May 8-10, 1974

## PARTICIPANTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>DAVID H. ALPERS, M.D.</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>JACK BARROW, M.D. (‘46)</td>
<td>Instructor in Clinical Medicine</td>
</tr>
<tr>
<td>ARTHUR E. BAUE, M.D.</td>
<td>Harry Edson Professor of Surgery</td>
</tr>
<tr>
<td>LEONARD BERG, M.D. (‘49)</td>
<td>Professor of Clinical Neurology</td>
</tr>
<tr>
<td>C. READ BOLES, M.D. (‘43)</td>
<td>Assistant Professor of Clinical Pediatrics</td>
</tr>
<tr>
<td>EUGENE M. BRICKER, M.D. (‘34)</td>
<td>Professor of Clinical Surgery</td>
</tr>
<tr>
<td>JOHN E. BROOKS, M.B., Ch.B.</td>
<td>Assistant Professor of Neurology, Associate Medical Director of the Irene Walter Johnson Institute of Rehabilitation</td>
</tr>
<tr>
<td>Hugh Chaplin, Jr., M.D.</td>
<td>Knuts Professor of Preventive Medicine and Professor of Medicine</td>
</tr>
<tr>
<td>JOHN A. COLLINS, M.D.</td>
<td>Associate Professor of Surgery</td>
</tr>
<tr>
<td>MARSHALL B. CONRAD, M.D. (‘45)</td>
<td>Assistant Professor of Orthopedic Surgery</td>
</tr>
<tr>
<td>W. MAXWELL COWAN, Ph.D.</td>
<td>Professor and Head of the Department of Anatomy</td>
</tr>
<tr>
<td>PHILIP R. DODGE, M.D.</td>
<td>Professor and Head of the Department of Pediatrics and Professor of Neurology</td>
</tr>
<tr>
<td>ROBERT C. DREWES, M.D. (‘55)</td>
<td>Assistant Professor of Clinical Ophthalmology</td>
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<tr>
<td>RONALD G. EVENS, M.D. (‘64)</td>
<td>Professor and Head of the Department of Radiology</td>
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<tr>
<td>RALPH B. FEIGN, M.D.</td>
<td>Associate Professor of Pediatrics</td>
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<tr>
<td>THOMAS B. FERGUSON, M.D.</td>
<td>Professor of Clinical Cardiacortic Surgery</td>
</tr>
<tr>
<td>DONALD H. FINGER, M.D. (‘50)</td>
<td>Assistant Professor of Clinical Medicine; President-Elect, Medical Center Alumni Association</td>
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<tr>
<td>JOHN V. FORREST, M.D.</td>
<td>Assistant Professor of Radiology</td>
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<tr>
<td>MOKHTAR GADO, M.D.</td>
<td>Assistant Professor of Radiology</td>
</tr>
<tr>
<td>SIDNEY GOLDRING, M.D. (‘47)</td>
<td>Professor of Neurological Surgery</td>
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<tr>
<td>RONALD K. GRADY, M.D. (‘66)</td>
<td>Instructor in Clinical Medicine</td>
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<tr>
<td>SAMUEL B. GUZE, M.D. (‘45)</td>
<td>Vice Chancellor for Medical Affairs; Professor of Psychiatry, Associate Professor of Medicine</td>
</tr>
<tr>
<td>JAMES A. HALIKAS, M.D.</td>
<td>Assistant Professor of Psychiatry</td>
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<tr>
<td>BARBARA M. HERJANIC, M.D.</td>
<td>Assistant Professor of Pediatrics and Psychiatry</td>
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<tr>
<td>JAMES P. KEATING, M.D.</td>
<td>Assistant Professor of Pediatrics</td>
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<tr>
<td>M. KENTON KING, M.D.</td>
<td>Dean, School of Medicine; Professor of Preventive Medicine and Public Health and of Medicine</td>
</tr>
<tr>
<td>DAVID M. KIPNIS, M.D.</td>
<td>Busch Professor and Head of the Department of Medicine</td>
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<tr>
<td>GEORGE H. KLINKERFUSS, M.D. (‘56)</td>
<td>Associate Professor of Neurology</td>
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<tr>
<td>ALLEN P. KLIPPEL, M.D.</td>
<td>Assistant Professor of Surgery</td>
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<tr>
<td>PAUL E. LACY, M.D.</td>
<td>Professor and Head of the Department of Pathology</td>
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<tr>
<td>WILLIAM M. LANDAU, M.D. (‘47)</td>
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<td>STEPHEN S. LEFRAK, M.D.</td>
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<tr>
<td>OLIVER H. LOWRY, M.D.</td>
<td>Professor and Head of the Department of Pharmacology</td>
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<tr>
<td>HERBERT LUBOWITZ, M.D. (‘58)</td>
<td>Associate Professor of Medicine</td>
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<tr>
<td>WILLIAM H. MCALISTER, M.D.</td>
<td>Professor of Radiology and Pediatrics</td>
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<tr>
<td>GERALD MEDOFF, M.D. (‘62)</td>
<td>Associate Professor of Medicine and Associate Professor of Microbiology</td>
</tr>
<tr>
<td>G. LELAND MELSON, M.D. (‘65)</td>
<td>Assistant Professor of Radiology</td>
</tr>
<tr>
<td>GEORGE E. MURPHY, M.D. (‘52)</td>
<td>Professor of Psychiatry</td>
</tr>
<tr>
<td>ANTHONY S. PAGLIARA, M.D.</td>
<td>Assistant Professor of Pediatrics and of Medicine</td>
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<tr>
<td>ROBERT PAINE, M.D.</td>
<td>Professor of Clinical Medicine</td>
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<td>WILLIAM J. PHILLIPS, M.D. (‘63)</td>
<td>Assistant Professor of Clinical Medicine</td>
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<td>FRED C. REYNOLDS, M.D. (‘34)</td>
<td>Professor of Orthopedic Surgery</td>
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<tr>
<td>MILTON J. SCHLESINGER, Ph.D.</td>
<td>Professor of Microbiology</td>
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<td>ROBERT M. SENIOR, M.D.</td>
<td>Associate Professor of Medicine</td>
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<tr>
<td>BARRY A. SIEGEL, M.D. (‘69)</td>
<td>Assistant Professor of Radiology</td>
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<tr>
<td>ROBERT E. SHANK, M.D. (‘39)</td>
<td>Professor and Head of the Department of Preventive Medicine and Public Health and Professor of Medicine</td>
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<tr>
<td>MORTON E. SMITH, M.D.</td>
<td>Associate Professor of Ophthalmology and Pathology</td>
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<td>Assistant Professor of Radiology</td>
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<td>TOM W. STAPLE, M.D.</td>
<td>Professor of Radiology</td>
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<tr>
<td>ARNOLD STRAUSS, M.D.</td>
<td>Resident Fellow in Pediatrics</td>
</tr>
<tr>
<td>JESSIE L. TERNBERG, M.D. (‘53)</td>
<td>Professor of Pediatric Surgery and Associate Professor of Pediatrics</td>
</tr>
<tr>
<td>PETER G. TUTEUR, M.D.</td>
<td>Instructor in Medicine</td>
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<tr>
<td>ROBERT W. VAUGHAN, M.D.</td>
<td>Assistant Professor of Anesthesiology</td>
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<tr>
<td>JAMES C. WARREN, M.D.</td>
<td>Professor and Head of the Department of Obstetrics and Gynecology and Professor of Biological Chemistry</td>
</tr>
<tr>
<td>JAMES A. WOOD, M.D. (‘49)</td>
<td>Instructor in Clinical Medicine</td>
</tr>
<tr>
<td>ROBERT W. VAUGHAN, M.D.</td>
<td>Assistant Professor of Plastic and Reconstructive Surgery</td>
</tr>
<tr>
<td>ELMER B. BROWN, M.D. (‘50)</td>
<td>Professor of Medicine; Associate Dean for Continuing Medical Education</td>
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## DIRECTIONS

**By Car**
- Take I-20 East for 1 mile; take exit to Audubon Ave.
- Follow Audubon Ave. for 0.8 mile; turn right at the intersection of Audubon Ave. and North 4th St.
- Drive north on North 4th St. for 0.1 mile; take exit at Audubon Ave.
- Drive west on Audubon Ave. for 0.2 mile to 4950 Audubon Ave.

**By Bus**
- Take the 27-Audubon bus at the intersection of North 4th St. and Audubon Ave.
- Drive south on North 4th St. for 0.2 mile; continue through the intersection of Audubon Ave.
- Drive west on Audubon Ave. to 4950 Audubon Ave.

**By Subway**
- Take the 27-Audubon subway at the intersection of North 4th St. and Audubon Ave.
- Continue through the intersection of Audubon Ave.; exit at the entrance of 4950 Audubon Ave.
Hawaii in February Was 'The Place to Be'

They came from Iowa, anxious to get away from the snow whistling across the plains.
They came from California, to leave the dreary smog behind.
They came from Missouri, because they heard it was going to be "a chance of a lifetime."
And they came from Honolulu to say "Aloha."

"They" were the 200-plus members of the Medical Center Alumni Association, their spouses, a few children, and some non-members who came because they heard the arrangements were by Group Travel Services, Inc.

On February 16 the First Clinical
Conference away from Washington University Medical Center began. On the 23rd it was adjudged a success by the physicians, who were exposed to 13 credit hours of information, by the women, who were entertained and instructed while their husbands were in clinical sessions, and by everyone who utilized the unscheduled hours for tennis, golf, swimming, fraternizing or just plain loafing.

Naturally, the loudest complaint was "You mean it's time to go back home already?"

Alumni President James A. Wood, M.D. '49, can look back on this initial conference with pride.
Happiness Was Hawaii

"Official Photographer" Jack Barrow, '46; Dr. & Mrs. Charles T. Farrington, '35, and Dr. & Mrs. H. L. Townsend, '37; Russell J. Blattner, '33, and Walter A. Rohlfing, Jr., '43 December; Mrs. Herbert E. Rosenbaum and Mrs. Bernard T. Garfinkel; and Heinz Haffner, '35.
Below, Dr. & Mrs. John A. McFarlane, '48; and Dr. & Mrs. Philip Greiver; center, Dr. & Mrs. Sydney T. Wright, '40; James A. Wood, '48 and Mr. and Mrs. Lee Kirkland; and Dr. & Mrs. John M. Nelson, '34; right, Dr. & Mrs. Walter A. Rohlfing, Jr., '43 December; and Dr. & Mrs. Ross McFadden.
Generations of Physicians

Air Force Captain John Stanford Lockett will be among the 114 receiving the M.D. degree from Washington University on May 19.

Capt. Lockett, a 1970 graduate of the U.S. Air Force Academy, has been “on active duty” the four years of his medical education, and in July will report to Wilford Hall Medical Center at Lackland Air Force Base in San Antonio, Texas to begin his internship.

But the feature of prime interest to this audience is that Lockett will become a fourth-generation physician, and that both this father and great-grandfather preceded him at this institution.

That isn't entirely correct, because his maternal great-grandfather, St. Cloud Cooper, was graduated in 1882 from Missouri Medical College, which in 1889 united with The St. Louis Medical College to become the Medical Department of Washington University, and later its School of Medicine.

John's father, Edgar Nathaniel Lockett, Jr., received the M.D. degree from Washington University in 1945. Great-great-grandfather, John C. Cooper, who practiced 60 years in Carrollton, Missouri, was a 1856 graduate of the University of Pennsylvania Department of Medicine.

About this Dr. Cooper, little else is recorded. But about his son, who finally settled in Fort Smith, Arkansas after practicing in Texas for 13 years, this tribute was given upon his 1914 inauguration as president of the State Medical Society:

"Born in Jefferson, Texas in 1861, Dr. St. Cloud Cooper is the scion of sturdy old English stock still flourishing in the mother country. His American ancestors fought with Washington for freedom. They battled in the early Indian wars, and were pioneers in developing this country."

Identified as a progressive physician, he founded Fort Smith's Cooper Clinic in 1920, and patterned it after the famed Mayo Clinic. At its opening it was described as "the only institution of its kind in the south or southwest."

Dr. Cooper also was recognized as a Fellow of the American College of Surgeons at its first convocation. He also was prominent in civic and educational affairs, and served for many years as president of the school board.

His daughter, Lucy Katherine Cooper Lockett was the mother of Edgar Nathaniel Lockett, Jr. After three years of pre-medical studies at East Tennessee State College (where he was listed in Who's Who Among Students in American Universities and Colleges) he was accepted at Washington University School of Medicine.

Upon graduation, Lieutenant (junior grade) Lockett interned at Naval Hospitals in Oakland, Calif., and Honolulu, Hawaii, before being assigned sea duty from San Diego, Calif. He was on the staff of the Long Beach Naval Hospital when John Stanford Lockett was born on Feb. 29, 1948, and then shortly thereafter he received his discharge.

In 1970 the Veterans Administration presented Dr. Lockett its 25-year service award at the Lake City, Florida VA Hospital, where he has been on the internal medicine staff since 1962. Previously he was at Morristown, Tenn., Poplar Bluff, Mo., and Marion, Ill. (where he was assistant chief of surgery in that VA Hospital).

John, the only one of four sons to follow his father into medicine, was valedictorian of his high school class in 1966 when he was appointed to the Air Force Academy. "My original interest was aeronautical engineering, but during my first year I became increasingly attracted to the biological sciences." While at the Colorado Springs institution he was named to the Dean's List each year.

Because the Air Force paid his way through both the Academy and medical school, Capt. Lockett has agreed to serve 10 years in the service. His wife, the former Carolyn Clark of Miami, Fla., who was an airline stewardess, is also a registered nurse, so the life as an Air Force medical family shouldn't be too difficult an adjustment.

John Lockett knows that his background and training at Washington University School of Medicine have prepared him for the next assignment.

"I will be doing a general surgical residency initially," he said. "Then I intend to spend a year in orthopedics and then go into plastic surgery."

But regardless of the new Doctor Lockett's duties or accomplishments, there is sure to be anticipation about whether there will be another physician in the next generation.
Alumni Activities

The President’s Letter

I'd like to share with you some of the information the Medical Center Alumni Financial Study Support Committee has been absorbing since its formation early this year.

As I mentioned in the last issue of Outlook, I believe that many of us busy practitioners tend to neglect the planning of our estates. And, in doing so we sometimes penalize our heirs, and often miss out on benefits, in the form of tax deductions, by failing to take advantage of available counsel.

Therefore, the committee was formed, with the intent of expanding our knowledge so as to be of assistance to you, the members of the Medical Center Alumni.

Naturally, we are hopeful that persons wishing to share their bounty do so in the direction of the institution that got them started on their way to solvency—and beyond! But in doing this sharing, we also want them to understand that they can benefit themselves.

For instance, did you know that there are three ways that one can make outright gifts to Washington University School of Medicine? 1) check or currency; 2) appreciated securities or real estate; 3) personal property that can be used by the institution, such as a collection, library or furnishings.

The outright gifts will produce a federal income tax deduction for the amount of the cash or for the fair market value of the appreciated property. (If it has been held for investment for at least six months.)

Another way to consider is the deferred gift. Here the donor retains the right for himself, or another, or both, to receive income derived from the property given to the institution, usually for life. Annual payments, normally would equal a fixed percentage of the value of the trust assets.

When a deferred gift is made, the donor receives a federal tax deduction for the actuarial value of the so-called "remainder interest" that passes to the School.

And, finally, is the gift made under a will, a “bequest.” This may be made either outright—giving the institution all rights to gift property—or deferred—subject to one or more intervening income interests.

When a bequest is outright, the donor’s estate receives a federal tax deduction for the full value of the gift property. If the bequest is deferred, the deduction is for the value of the remainder interest in the property that will pass to the institution.

Each of the gifts described has its own advantages, and each will be attractive in its own situation.

This just skims the surface, I realize. If the committee, or the experts who are backing us, may assist along these lines, please let us know.

James A. Wood, M.D. '49
President, Medical Center Alumni Association

'20s

Faye Cashatt Lewis, '21, Webster City, Iowa, has had another book published, All Out Against Arthritis. In addition to numerous articles in literary and health magazines, she is the author of Doc's Wife; Patients, Doctors and Families; A Doctor Looks at Heart Trouble; and Nothing to Make a Shadow. She is the wife of classmate William Lewis, and was the first woman graduate of the School of Medicine.

Einar H. Christopherson, '25, San Diego, Calif., is clinical professor of pediatrics at the University of California.

John F. Patton, '28, Columbia, Mo., has retired as professor of urological surgery at the University of Missouri.

Sidney F. Pakula, '29, Kansas City, Mo., is an associate professor of pediatrics at the University of Missouri School of Medicine and at Children's Mercy Hospital.

J. Marvin Salzman, '29, Springfield, Ill., has been a consultant to the Department of Public Aid and Federal Disability Program since his 1971 retirement from active medical practice.

'30s

William H. Ellett, '30, Appleton City, Mo., founder in 1934 of the Ellett Hospital, in December cut the ribbon officially opening the new Ellett Memorial Hospital.

W. Wallace Greene, '31, Shawnee Mission, Kan., who retired from the active practice of general surgery, is now occupied with various charities, farming and banking.

Adrian Scolten, '31, Portland, Me., had an article, "Your Brain Is Your Most Precious Possession," in the Halifax (Nova Scotia) Herald-Chronicle. The Federation on Alcohol & Other Drug Problems of that Canadian province is reproducing the article and will distribute it in leaflet form.
Brian B. Blades, '32, Washington, D.C., is now professor emeritus of surgery at George Washington University, and for the past two years has been working at the Veterans Administration where his titles are Distinguished Physician and Acting Director of Surgery at the VA central office.

Charles L. Langsam, '35, has moved from Evansville, Ind., to Atlanta, where he is a psychiatric consultant to the Georgia Regional Hospital.

Robert W. Elliott, '36, Alton, Ill., has been active in civic affairs: seven years on the Park and Recreation Board; two years as president of the Greater Alton Chamber of Commerce; member of the board of directors and chairman of a successful fund campaign for the YMCA; founder of Pride, Inc., PACE, and the Law, Order and Justice Committees, and member of the board of each organization. He received the Law Day Award for individual achievement from Madison County and the City of Alton.

Nathan R. Kahn, '36, Palm Beach, Fla., is medical officer for the substance abuse program at the Community Mental Health Center.


Tim V. Richey, '38, San Diego, Calif., is associated with the narcotics treatment program in the Department of Psychiatry at the University of California at San Diego.

Eleanor L. Steindorf, '38, Pasadena, Calif., is a clinician for the Maternity and Infant Care Project in Los Angeles County.

Irving L. Berger, '39, Cleveland, Ohio, was co-chairman of the American Group Psychotherapy Institute in New York City in February.

Receptions Scheduled

The Washington University Medical Center Alumni Association will sponsor receptions at the following meetings:

- American College of Obstetricians and Gynecologists, April 29, Las Vegas
- American Society for Clinical Investigation, May 6, Atlantic City
- American Psychiatric Association, May 7, Detroit
- American Medical Association, June 24, Chicago

Graduates of the School of Medicine, former house officers, faculty and former faculty, spouses and friends are invited.

Charles L. Eckert, '39, professor and chairman of surgery at Albany Medical College of Union University, wrote “What’s New in Breast Cancer?” in the Jan. 21, 1974 Hospital Tribune.

'40s

Harold A. Budke, '40, Kansas City, Mo., was awarded a Charter Fellowship in the American Academy of Family Practice.

John S. Skinner, '40, and Theodore M. Meiners, '48, St. Louis, were elected representatives to St. Luke’s Hospital Medical Staff Association’s administrative committee.

D. Cramer Reed, '41, Wichita, Kan., reports a title change from dean, College of Health Related Professions, to vice president for health education at Wichita State University. His specialties are medical education and urology.

John M. Arthur, '43 March, Baltimore, Md., is director of Mental Health Services for Children and Youth in North Baltimore County, and president of the Medical Society for Adolescent Psychiatry.

Ernest Schwartz, '43 December, San Francisco, Calif., has received a law degree from Golden Gate College, and is going into forensic medicine.

Robert W. Tichenor, '43 December, St. Louis, is a conformation judge, specializing in German Shepherds, for the American Kennel Club, and is listed in Who's Who in the Midwest.

Herbert C. Wiegand, '43 December, St. Louis, has been elected to the board of directors of Lindbergh Bank. He is also first vice chairman of the board of trustees of St. Louis Blue Shield.

Virgil Loeh, Jr., '44, St. Louis, associate professor of medicine and assistant professor of pathology at Washington University, was elected president of the St. Louis Society of Internal Medicine, and appointed to the National Cancer Institute’s Diagnostic Research Advisory Group.

Hugh E. Stephenson, Jr., '45, Columbia, Mo., professor of surgery, University of Missouri Medical School, was the Edwin C. Ernst Memorial lecturer at the St. Louis Medical Society. He spoke on “Spontaneous Regression of Cancer—A Computerized Data Reduction Study.”

Robert T. Polack, '47, Boyne City, Mich., is head of the primary care department at the Burns Clinic Medical Center in Petoskey, Mich.

George Sato, '47, St. Louis, is chairman of the advisory committee of the city-county March of Dimes Birth Defects Foundation.

Shirley Schaffer, '47, Millwood, N.Y., is director of the Mount Vernon-Tuckahoe Neighborhood Mental Health Clinic in Westchester County.

Gerald Perkoff, '48, St. Louis, professor of medicine and preventive medicine and director of the Division of Health Care Research, represented Washington University School of Medicine at the U.S. House Public Health Subcommittee hearings on national health insurance. Richard V. Bradley, '52, clinical instructor of Surgery, appeared in behalf of the St. Louis Medical Society, of which he is president.
Seymour Reichlin, ’48, Boston, Mass., is senior physician and chief of the endocrine division of the New England Medical Center Hospital. He is serving as a distinguished lecturer for the western section of the American Federation for Clinical Research and the American Society for Gynecologic Research.

Stanley N. Rokaw, ’49, Downey, Calif., is president of the California Thoracic Society, and medical director of the Lung Association of Los Angeles.

’50s

Walter A. German, ’51, Springfield, Mo., was installed as president of the Greene County Medical Society.

Forest D. Harris, ’51, Lawton, Okla., has completed his year as president of the Comanche-Cotton-Tillman Medical Society.

Charles J. Jannings, III, ’51, Fairfield, Ill., is president of the Illinois Academy of Family Practice, and chairman of Region V of Comprehensive Health Planning for the state.

John H. Knowles, ’51, New York, N.Y., president of The Rockefeller Foundation, is a judge to select the recipient of the American Nurses’ Association’s Mary Mahony Award for furthering intergroup relations within the profession.

Herbert B. Zimmerman, ’51, St. Louis, assistant clinical professor of medicine at Washington University, is principal investigator in the “Multiple Risk Factor Intervention Trial” being conducted by the St. Louis Heart Association.

John D. Davidson and W. Edward Lansche, ’52, were elected representatives to St. Luke’s Hospital’s Medical Staff Association’s administrative committee.

John M. Kissane, ’52, St. Louis, professor of pathology and pediatrics at Washington University, was elected to the board of directors of the St. Louis Heart Association and is president-elect of the Pediatric Pathology Club.

Robert C. Pronko, ’52, Rio Piedras, Puerto Rico, has completed his residency and passed the board exam in anesthesia, after 15 years in general practice and obstetrics and gynecology.

James L. Wellhouse, ’52, Washington, D.C., has retired as director of mental health at the U.S. Public Health Service in Baltimore and is now in private practice.

George L. Shmagranoff, ’53, Redwood City, Calif., has completed his residency as chairman of the department of medicine at Sequoia Hospital. He was promoted to clinical assistant professor of medicine at Stanford University School of Medicine.

David H. Corser, ’54, LaCrosse, Wis., is chief of pediatric services at St. Francis Hospital, and on the board of directors at Shemp-Grandview Clinic Service Corporation.

Irving Kushner, ’54, Morgantown, W.Va., was the guest speaker for the Harrison County Division of the West Virginia Chapter of the Arthritis Foundation Forum.

Horatio C. Wood, IV, ’54, Cincinnati, Ohio, is a Fellow in the American Psychiatric Association and the Philadelphia College of Physicians. He is president of the Cincinnati Psychiatric Society.

Galen B. Cook, ’55, Tahoe Vista, Calif., is founder and president of Medical Logic International, a health insurance billing organization.

Glendall L. King, ’55, Gastonia, N.C., is president of the Gaston County Medical Society. He recently moved into the new 479-bed Gaston County Hospital with all single rooms.

Frederick T. Kraus, ’55, St. Louis, is the director of laboratory medicine at St. John’s Mercy Medical Center.
Ferris N. Pitts, '55, St. Louis, associate professor of clinical psychiatry at Washington University, has been elected president of the medical staff of St. Vincent's Hospital.

Miles C. Whitener, '55, St. Louis, was elected president of the Medical Staff of Missouri Baptist Hospital.

Robert C. Meredith, '57, Yokosuka, Japan, is anticipating orders to San Diego after four years naval duty overseas.

John R. Broadwater, '58, Fort Smith, Ark., is president of the Arkansas Division of the American Cancer Society.

John S. Schoentag, '60, has been elected president of the St. Louis Dermatological Association.

Thomas F. Richardson, '63, St. Louis, was elected vice-president of the medical staff of St. Vincent's Hospital.

Robert M. Swenson, '63, Philadelphia, Pa., is an associate professor of medicine and microbiology and head of the division of infectious diseases at Temple University.

Don E. Cheatum, '64, Richardson, Tex., is in private practice in rheumatology in Dallas, and clinical instructor at the University of Texas Southwestern Medical School. He served three years with the U.S. Army in West Germany, and has just completed a U.S. Public Health Service Traineeship in rheumatic diseases.

John M. Grollmus, '64, San Rafael, Calif., is completing a neurosurgery residency at the University of California Medical Center in San Francisco.

David A. Hardy, '64, is a clinical instructor in urology at St. Louis University Medical School.

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John E. Munzenrider, '64, Norwood, Mass., presented a paper on the "Role of Hysteroigraphy in Treatment Planning in Endometrial Carcinoma" at the American Society of Therapeutic Radiologists meeting in New Orleans.

George F. Reinhardt, '64, Hines, Ill., is an assistant professor of surgery at Loyola University Stritch School of Medicine.

Cdr. Charlie W. Shaefler, Jr., '64, Chesapeake, Va., is chief of cardiology at the Portsmouth Naval Hospital.

Mallinckrodt Institute of Radiology's newest installation, Computerized Radiologic Tomography as performed by the EMI Scanner, was demonstrated for the news media on March 21. In the left photo, Ronald G. Evens, M.D., '64, professor of radiology and director of the Institute, explained the operation of the $350,000 device to KMOX-TV Reporter Betsy Bruce. Right, Mohammad Gado, M.D., assistant professor of radiology, interprets readings. By combining the speed and accuracy of the digital computer with highly sensitive X-ray detectors, this system enables 100 times more information to be extracted from the X-ray photons than with conventional methods. It is able to detect minute variations in the density of brain tissue, providing information with a sensitivity and detail hitherto unobtainable. This is only the seventh facility in this country.
Paul S. Schwartz, '64, Worcester, Mass., is a clinical instructor of medicine at the University of Massachusetts School of Medicine, and vice-president of the Central Massachusetts Heart Association.

E. Mitchell Singleton, '64, Fayetteville, Ark., was recently certified by the American Board of Ophthalmology and is now in private practice.

Joshua B. Grossman, '65, Asheville, N.C., has opened an internal medicine and cardiology practice.

E. Wiley Johnson, Jr., '65, has returned to St. Louis for a year's nuclear medicine fellowship in the Mallinckrodt Institute of Radiology.

Carl G. Kardinal, '65, Oakland, Calif., is board certified in internal medicine, hematology, and medical oncology. He is the principal investigator in the Western Cancer Study Group.

Lewis H. Koplik, '65, Albuquerque, N.M., has established the Abortion and Pregnancy Testing Clinic, a center for diagnosis, counselling and treatment.

Edward K. Massin, '65, Houston, Tex., is practicing cardiology in the Texas Medical Center.

Neill Valdes, '65, Carbondale, Ill., is an orthopaedic surgeon at the Carbondale Clinic, and a clinical associate to the Southern Illinois University School of Medicine.

Allan P. Wolff, '65, Chicago, Ill., is on the full-time staff at Northwestern University School of Medicine, and clinical director for the department of otolaryngology at Cook County Hospital.

Sharon Lynn Woodruff, '65, whose initial office for the practice of neurology and psychiatry was opened in Washington, Mo., has expanded to an office in St. Louis.

Thomas J. Prendergast, Jr., '66, Columbia, Mo., reports he passed the boards in preventive medicine at the APHA meeting in San Francisco in November.

Oliver H. Lowry, M.D., Ph.D., professor and head of the Department of Pharmacology, left, welcomed Dr. Sedrak G. Movcessian, chief of the Armenian Academy of Science's Biochemistry Nucleotides and Amino Acids Laboratory. The Russian scientist was visiting the Medical School to present a seminar on "The Role of Deamino NAD in Glycolysis and Oxidative Phosphorylation."

Walter D. Stevenson, III, '66, Quincy, Ill., has returned to his home town to join his father in practice. He is the third generation to practice ophthalmology there.

Richard B. Counts, '67, Seattle, Wash., assistant professor of medicine at the University of Washington, is in charge of the Hemophilia Care Program at King County Central Blood Bank.

Frank Vinicor, '67, Indianapolis, Ind., is a fellow in endocrinology at the Indiana University Medical Center.

Harold J. Davidson, Jr., '68, Tacoma, Wash., has a full-time emergency room practice at Tacoma General Hospital.

James M. Go forth, '68, Fort Leonard Wood, Mo., in July will become associate pathologist at St. Anthony's Hospital in Amarillo, Texas.

Joel M. Karlin, '68, Lakewood, Colo., is opening a practice of adult and pediatric allergy in Denver. He will present a paper, "Effect of Continuous Chlor-trimeton Administration in Out-patient Asthmatics," at the 30th Congress of American College of Allergists in Paris in April.

Donald R. Kirks, '68, San Antonio, Tex., after his tour of duty at Brooke Army Medical Center in June, will be a pediatric radiologist at Children's Hospital Medical Center, Oakland, Calif.

Andrea Stover Nachenberg, '68, Woodland Hills, Calif., in July will begin a residency in physical medicine and rehabilitation at Wadsworth Veterans' Administration Hospital in Los Angeles.

Steven B. Raffin, '68, Burlingame, Calif., is an instructor in medicine at the University of California, San Francisco. He has passed the boards of internal medicine and gastroenterology, and is principal investigator for a NIH grant, "Intestinal Absorption of Hemoglobin and Iron."

Lt. Cdr. Michael L. Cowan, '69, Rockville, Md., is a fellow in hematology at the National Naval Medical Center in Bethesda.

Charles G. Fathman, '69, Bethesda, Md., is a clinical associate in the immunology branch of the National Cancer Institute.

Thomas B. Hall, III, '69, Kansas City, Mo., is a third year resident in internal medicine at the University of Kansas Medical Center. He will become an endocrinology fellow at the University of Virginia Medical School in July.

Robert C. Kolodny, '69, St. Louis, is research associate and director of the infertility program at the Reproductive Biology Research Foundation, and on the Jewish Hospital department of medicine staff.

John Charles Long, '69, Boston, Mass., is a clinical and research fellow at Harvard Medical School at Massachusetts General Hospital.
'70s

Bruce D. Fisher, '70, is stationed at the U.S. Naval Hospital in Ceiba, Puerto Rico.

Alexander L. Miller, '70, Winchester, Mass., is a psychiatry resident at Massachusetts General Hospital.

Jo B. Zurbrugg, '70, Oak Park, Ill., is completing a final year of residency, and plans to go into the private practice of pediatrics there in June.

Robert M. Simpson, '71, Albuquerque, N.M., is at Carrie Tingley Hospital for Crippled Children in Truth or Consequences, N.M., training in orthopaedic surgery.

G. Pat Solis, '72, Houston, Tex., is an obstetrics/gynecology resident at Hermann Hospital.

Michael F. Finkel, '73, Chicago, Ill., has been selected for a residency in neurology at Strong Memorial Hospital of the University of Rochester.

Former House Staff and Former Faculty

James M. Duncan, M.D., San Antonio, Tex., is a diplomate to the American Board of Internal Medicine, and a member of the visiting staff at Bexar County Hospital, University of Texas School of Medicine. He presented a paper to the Southern Medical Association on "Sutures in Gastrointestinal Anastomosis."

Gilbert B. Forbes, M.D., Rochester, N.Y., was appointed chief editor of the American Journal of Diseases of Children.

Roy L. Kile, M.D., Lantana, Fla., has retired from practice and from the faculty at the University of Cincinnati College of Medicine.

Richard W. McCallum, M.D., Los Angeles, Calif., is completing a fellowship in gastroenterology at Wadsworth V.A. Hospital and UCLA Hospitals.

Lawrence B. Oseai, Ph.D., Chicago, Ill., associate professor of physical education at the University of Illinois at Chicago Circle, is engaged in research on obesity with a grant from the American Heart Association. He has published 17 papers on the subject.

Jean E. Russell, M.D., St. Louis, Mo., now doing research in rheumatoid arthritis at Jewish Hospital, was honored at the Alpha Omicron Pi Founders Day Luncheon in January. She received the Fraternity's Arthritis Research Fellowship for 1973.

M. Skelton, M.D., after two years in the Navy at San Diego, has joined the Radiology Associates of Savannah, Ga.

Frederick H. Taylor, M.D., Charlotte, N.C., is the president-elect of the Southern Thoracic Surgical Association.

Leonidas Theodore, M.D., Springfield, Ill., has joined the staff of the Baumann Clinic. He was consulting child psychiatrist for the St. Louis County Health Department, and director of the Day Hospital Youth Center.

Brian H. Weinerman, M.D., Winnipeg, Canada, is an assistant professor of medicine at the University of Manitoba, and an oncologist at St. Boniface Hospital.

Ralph B. Woolf, M.D., Elmhurst, N.Y., is serving as chief of service at the Elmhurst division of the Mount Sinai School of Medicine.

Jackson Joe Yirm, M.D., has left his position as assistant professor of medicine at Baylor College to become chief of the renal section at Erlanger Hospital, Chattanooga, Tenn.

IN MEMORIAM

Alumni

Clarence J. Brown, '17 . Summer 1973
Lea J. Hannon, '19 .... Aug. 28, 1973
Henry N. Fisher, '27 ... June 30, 1973
J. Lester Henderson, '29 March 15, 1974
Melvin E. Staehle, '29 ... April 1, 1974
John L. Gomset, '30 ... Oct. 15, 1973
Emmett J. Senn, '35 ... March 27, 1974
Charles A. Brasher, '36 ... March 3, 1974
Carroll W. Huffman, '37 ... Oct. 29, 1973
Marie H. Wittler, '37 ... March 25, 1974
Henry T. Friedman, '40 ... Jan. 22, 1974
Charles H. Ransom, '41 ... Oct. 23, 1973
Earl W. Sutherland, Jr., '42 ... March 9, 1974
James E. Vester, '51 ... Aug. 6, 1973
Stanley E. Kobashigawa, '54 ... Oct. 10, 1973

Former House Officers

David Fink, M.D. ....... Jan. 30, 1974
George R. Geeseman, M.D. Jan. 3, 1974
Richard Y. Kimura, M.D. .... March 11, 1974
Lawrence K. MacDaniels, M.D. ... Sept. 8, 1973
Robert M. Muirhead, M.D. .... March 11, 1974
Earl H. Phillips, M.D. ... Dec. 21, 1973
I. Darin Puppel, M.D. ... Dec. 17, 1973

Faculty

Carmelita Lowry ....... Jan. 11, 1974
Help OUTLOOK Keep Abreast of Your Activities

Dear Readers:

To help us keep your classmates, former house officers or faculty, and friends informed of your achievements, we would appreciate your taking a few minutes to fill out the following questionnaire.

Name ____________________________ Class __________________

Address __________________________

Recent activities (publications, promotions, etc.) __________________________

Honors, fellowships, medals, honorary degrees __________________________

Major field of research or study __________________________

Special interests __________________________

Please cut out, fold, staple and mail.

WE ALSO APPRECIATE RECEIVING PHOTOGRAPHS AND PRESS CLIPPINGS.
Cancer Research Extended With Tobacco Firms’ Grant

Six tobacco companies and a tobacco growers’ association have awarded $800,000 to Washington University to extend a pioneering basic research program on the immunologic properties of cancer.

In progress since April, 1971 in the Medical School’s Cancer Immunology Laboratories, the research was begun with a $2,000,000 five-year grant from the same tobacco organizations. The new grant will extend the laboratories’ research for two years.

The sponsoring organizations are: Brown & Williamson Tobacco Corp.; Liggett & Myers Inc.; Lorillard, a Division of Loews Theatres Inc.; Philip Morris Inc.; R. J. Reynolds Tobacco Co.; United States Tobacco Co.; and Tobacco Associates, Inc.

Studies are under the direction of Lauren V. Ackerman, M.D., emeritus professor of pathology, and Paul E. Lacy, M.D., Ph.D., Edward Mallinckrodt Professor and head of the Department of Pathology.

Dr. Lacy pointed out that the human body makes feeble, immunologic responses to the many types of cancer. Investigators in the Cancer Immunology Laboratories have the goal of finding the precise biochemical nature of the specific response for various forms of tumors. “Pinpointing the nature of these responses could lead to important clinical applications,” Dr. Lacy said.

“First, the ability to detect specific immunologic responses—for example, to cancer of the colon or of the lung—could mean a much earlier diagnosis of these common types of cancer. Second, a longer-range possibility would be the hope of amplifying a specific immunologic response to prevent a tumor from spreading.”

Principal investigators are Joseph M. Davie, Ph.D., M.D., associate professor of pathology and of microbiology; Richard G. Lynch, M.D., assistant professor of pathology; and Heschel Raskas, Ph.D., Juan Rosai, M.D., and Thomas W. Tillack, M.D., all associate professors of pathology.

Recognition Received . . .

. . . by Joseph L. Price, Ph.D., assistant professor of anatomy, who was awarded the C. Judson Herrick Prize for outstanding research in neuroanatomy in 1973 by the American Association of Anatomists.

. . . by William S. Sly, M.D., associate professor of medicine and of pediatrics, who received the Royal Society of Medicine Travelling Fellow Award for 1973.

. . . by Craig M. Jackson, Ph.D., assistant professor of biological chemistry, who was awarded the title of American Heart Association Established Investigator.

. . . by David H. Alpers, M.D., professor of medicine, who presented the Merck Sharp & Dohme Lecture at Johns Hopkins University.

. . . by Marie H. Greider, Ph.D., associate professor of pathology, who was elected president of the Central States Electron Microscopy Society.

. . . by Paul E. Lacy, M.D., Ph.D., Edward Mallinckrodt Professor and head of the Department of Pathology, who delivered the Charles Best Lecture at the Toronto Diabetes Association. He also was the Barbara Scott Maroney Memorial Lecturer at the annual meeting of the State Medical Society of Wisconsin.

. . . by William E. Allen, Jr., M.D., assistant professor of clinical radiology, who received the Gold Medal from the American College of Radiology.

. . . by Surgical Fellow Ronald C. Merrell, M.D., who received the fourth annual Wilson S. Stone Memorial Award, as acknowledgement of his innovative postdoctoral work on the cell surface recognition properties of embryonic cells, from the M. D. Anderson Hospital and Tumor Institute of the University of Texas System Cancer Center, Houston.